## Accidents caused by maintenance

Accidents in which maintenance was cited as a cause by the National Transportation Safety Board, 1995-2001

June 8, 1995 Hartsfield International Airport, Atlanta

ValuJet DC-9

The right engine exploded as the jet accelerated for takeoff. The pilots stopped the jet and passengers evacuated. But shrapnel severed a fuel line and burning jet fuel engulfed the cabin. National Transportation Safety Board investigators traced the problem to a crack in an engine fan blade that should have been detectable during an engine overhaul four years earlier. The accident was blamed on the overseas maintenance facility that had done the work, Turk Hava Yollari.

Fatalities: 0

Injuries: 1 serious, 6 minor

NTSB report on incident (NTSB web site)

Aug. 21, 1995

Carrollton, Ga.

Atlantic Southeast Airlines Embraer EMB-120

About 20 minutes after leaving Atlanta, a blade on the left propeller broke loose. The damaged plane crash-landed in a field and caught fire. The NTSB found that Hamilton Standard, which made the blade, had not adequately inspected it for damage.

Fatalities: 8

Injuries: 13 serious, 8 minor

NTSB report on incident (NTSB web site)

May 11, 1996

Everglades, Fla.

ValuJet DC-9

About 6 minutes after takeoff from Miami, a fire broke out in the cargo hold beneath the cabin. The pilots attempted to return for an emergency landing, but crashed into a swamp. Everyone aboard died. Devices that produce oxygen when a jet loses cabin pressure had been removed from another jet as part of a maintenance project. The so-called oxygen generators were improperly loaded as cargo. Investigators ruled that one or more of the devices spewed pure oxygen and triggered the fire. The NTSB blamed the crash on

ValuJet and a firm it had hired to perform maintenance, SabreTech. The NTSB also cited the Federal Aviation Administration's failure to require smoke detection and fire suppression in cargo holds.

Fatalities: 110

Injuries: 0

NTSB report on incident (NTSB web site)

July 6, 1996

Pensacola, Fla.

**Delta Airlines MD-80** 

The jet's left engine exploded before takeoff. Metal pieces flew into the cabin and killed two passengers. Delta's maintenance inspectors missed the crack during an inspection, the NTSB ruled.

Fatalities: 2

Injuries: 2 serious, 3 minor

NTSB report on incident (NTSB web site)

July 6, 1997 Albuquerque International Airport Delta Airlines Boeing 727

The jet's right landing gear collapsed after landing. The NTSB found that maintenance inspections of the landing gear had been inadequate to spot preexisting damage.

Fatalities: 0

Injuries: 3 minor

NTSB report on incident (NTSB web site)

Aug. 31, 1998 John F. Kennedy International Airport, New York

DHL Airways Boeing 727

Shortly after takeoff an engine failed. During an emergency landing, the right landing gear broke. The NTSB found that the wrong grease had been used on an engine part. It also recommended that airlines conduct additional inspections of landing gear.

Fatalities: 0

Injuries: 0

NTSB report on incident (NTSB web site)

Nov. 1, 1998 Hartsfield International Airport, Atlanta

AirTran Airways Boeing 737

Mechanics trying to fix a leak instead disabled one of the

jet's entire hydraulic systems, the NTSB said. Pilots discovered the problem shortly after takeoff and switched to a backup system. But the backup failed after landing and the jet skidded off the runway and stopped in a ditch.

Fatalities: 0

Injuries: 13 minor

NTSB report on incident (NTSB web site)

Jan. 31, 2000 Pacific Ocean near Port Hueneme, Calif.

Alaska Airlines MD-80

The large wing at the rear of the jet flopped loose and the jet plunged into the ocean, killing everyone aboard. NTSB investigators traced the problem to a large screw that held the wing in place. The NTSB found the screw had not been lubricated, despite airline paperwork indicating it had been. The NTSB also cited the FAA for allowing Alaska to extend the time period between lubrications.

Fatalities: 88

Injuries: 0

NTSB report on incident (NTSB web site)

Feb. 16, 2000

Rancho Cordova, Calif.

Emery Worldwide DC-8

The cargo jet crashed shortly after takeoff while trying to return for an emergency landing. The pilots lost the ability to raise and lower the jet's nose because a part in the jet's tail had not been properly bolted on, the NTSB ruled.

Fatalities: 3

Injuries: 0

NTSB report on incident (NTSB web site)

Aug. 8, 2000

Near Greensboro, N.C.

AirTran Airways DC-

An electrical part caught fire 4 minutes after takeoff. The cockpit filled with smoke so thick that the pilots could not see each other, but they managed to reach the airport. The NTSB traced the fire to an electrical component that had been improperly repaired by Turkish Airlines, the jet's previous owner.

Fatalities: 0

**Injuries:** 5 minor

NTSB report on incident (NTSB web site)

Nov. 29,

**Atlanta** 

AirTran Airways DC-

2000

Shortly after takeoff, electrical problems triggered alerts in the cockpit. As the pilots made an emergency landing, smoke began filling the cabin. The NTSB found that liquid from a toilet had leaked onto wiring and caused short circuits and fire. Investigators blamed airline workers who serviced the toilet and said mechanics who had recently done work in the area had forgotten to replace a panel designed to keep liquid from reaching the wires.

Fatalities: 0

Injuries: 13 minor

NTSB report on incident (NTSB web site)

Source: National Transportation Safety Board, USA TODAY

research by Alan Levin

## Recent accidents possibly involving maintenance

**Jan. 6**, 2003

Charlotte/Douglas **International Airport**, Charlotte, N.C.

Air Midwest Airlines Beech 1900D

The plane's nose shot skyward after takeoff despite the pilots' attempts to level it off. The plane went out of control and hit the ground near the runway, killing everyone aboard. NTSB investigators discovered that the device that raises and lowers the plane's nose had been improperly adjusted in maintenance shortly before the accident. A full load of passengers and cargo exacerbated the condition. The NTSB has not concluded what caused the crash, though sources familiar with the investigation say it revolves around maintenance.

Fatalities: 21

Iniuries: 0

NTSB report on incident (NTSB web site)

Aug. 26, 2003

Nantucket Sound, off Cape Cod, Mass.

Colgan Air Beech 1900D

The plane, on its first flight after maintenance work, crashed as the pilots attempted to return for an emergency landing. No passengers were aboard because the pilots were planning to move the plane to Albany for the first flight of the day. A major focus of the investigation is whether the maintenance on a component that raises and lowers the plane's nose could have been done improperly. One of the pilots radioed a cryptic emergency message that suggests they had problems with the same system.

Fatalities: 2

Injuries: 0

NTSB report on incident (NTSB web site)

Source: National Transportation Safety Board, USA TODAY research by Alan Levin